Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An ink jet printhead comprising:

a plurality of nozzles ~~disposed in a plane of the printhead~~;

a plurality of bubble forming ~~chamber~~ chambers each corresponding to ~~each~~ a respective one of the nozzles ~~respectively~~;

~~at least one~~a heater element and a non-heater element disposed in each of the bubble forming chambers ~~respectively~~ to overlay one another with a space therebetween, the heater and non-heater elements being formed of the same heater material and each heater element being ~~configured for~~ connected to corresponding electrodes so as to be in thermal contact with a bubble forming liquid in the respective bubble forming chamber, such that:

heating ~~the~~ each heater element with said corresponding electrodes to a temperature above the boiling point of the bubble forming liquid forms a gas bubble that causes the ejection of a drop of an ejectable liquid through the nozzle corresponding to that heater element; wherein,

~~the~~ each heater element has ~~at least one~~ a bubble nucleation section, each bubble nucleation section having a smaller cross section than the remainder of ~~the~~ that heater element~~; and~~

~~a projecting nozzle rim formed about each of the nozzles respectively, each nozzle rim projecting in a direction perpendicular to the plane of the printhead so as to direct the drops ejected from the respective nozzle in said direction~~.

2. (Canceled)

3. (Currently Amended) The printhead of claim 1 wherein ~~the~~ each bubble forming chamber has a circular cross section and ~~the~~ each heater element has arcuate sections that are concentric with the circular cross section.

4. (Canceled)

5. (Original) The printhead of claim 1 wherein the bubble forming liquid and the ejectable liquid are of a common body of liquid.

6. (Original) The printhead of claim 1 being configured to print on a page and to be a page-width printhead.

7. (Canceled)

8. (Original) The printhead of claim 1 wherein each heater element is configured such that an actuation energy of less than 500 nanojoules (nJ) is required to be applied to that heater element to heat that heater element sufficiently to form a said bubble in the bubble forming liquid thereby to cause the ejection of a said drop.

9. (Canceled)

10. (Original) The printhead of claim 1 comprising a substrate having a substrate surface, wherein the areal density of the nozzles relative to the substrate surface exceeds 10,000 nozzles per square cm of substrate surface.

11. (Original) The printhead of claim 1 wherein each heater element has two opposite sides and is configured such that a said gas bubble formed by that heater element is formed at both of said sides of that heater element.

12. (Previously Presented) The printhead of claim 1 wherein the bubble which each heater element is configured to form is collapsible and has a point of collapse, and wherein each heater element is configured such that the point of collapse of a bubble formed thereby is spaced from that heater element.

13. (Original) The printhead of claim 1 comprising a structure that is formed by chemical vapor deposition (CVD), the nozzles being incorporated on the structure.

14. (Original) The printhead of claim 1 comprising a structure which is less than 10 microns thick, the nozzles being incorporated on the structure.

15. (Canceled)

16. (Original) The printhead of claim 1 wherein each heater element is formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

17. (Currently Amended) The printhead of claim 1 wherein each heater element includes solid material and is configured for a mass of less than 10 nanograms of the solid material of that heater element to be heated to a temperature above said boiling point thereby to heat ~~said part of~~ the bubble forming liquid to a temperature above said boiling point to cause the ejection of a said drop.

18. (Previously Presented) The printhead of claim 1 wherein each heater element is covered by a conformal protective coating, the coating of each heater element having been applied substantially to all sides of the heater element simultaneously such that the coating is seamless.

19. (Currently Amended) A printer system which incorporates a printhead, the printhead comprising:

a plurality of nozzles ~~disposed in a plane of the printhead~~;

a plurality of bubble forming ~~chamber~~ chambers each corresponding to ~~each~~ a respective one of the nozzles ~~respectively~~;

~~at least one~~a heater element and a non-heater element disposed in each of the bubble forming chambers ~~respectively~~ to overlay one another with a space therebetween, the heater and non-heater elements being formed of the same heater material and each heater element being ~~configured for~~ connected to corresponding electrodes so as to be in thermal contact with a bubble forming liquid in the respective bubble forming chamber, such that:

heating ~~the~~ each heater element with said corresponding electrodes to a temperature above the boiling point of the bubble forming liquid forms a gas bubble that causes the ejection of a drop of an ejectable liquid through the nozzle corresponding to that heater element~~; wherein~~,

~~the~~ each heater element has ~~at least one~~ a bubble nucleation section, each bubble nucleation section having a smaller cross section than the remainder of ~~the~~ that heater element~~; and~~

~~a projecting nozzle rim formed about each of the nozzles respectively, each nozzle rim projecting in a direction perpendicular to the plane of the printhead so as to direct the drops ejected from the respective nozzle in said direction~~.

20. (Canceled)

21. (Currently Amended) The system of claim 19 wherein ~~the~~ each bubble forming chamber has a circular cross section and ~~the~~ each heater element has arcuate sections that are concentric with the circular cross section.

22.–23.(Cancelled)

24. (Original) The system of claim 19 wherein the bubble forming liquid and the ejectable liquid are of a common body of liquid.

25. (Original) The system of claim 19 being configured to print on a page and to be a page-width printhead.

26. (Canceled)

27. (Original) The system of claim 19 wherein each heater element is configured such that an actuation energy of less than 500 nanojoules (nJ) is required to be applied to that heater element to heat that heater element sufficiently to form a said bubble in the bubble forming liquid thereby to cause the ejection of a said drop.

28. (Canceled)

29. (Original) The system of claim 19 comprising a substrate having a substrate surface, wherein the areal density of the nozzles relative to the substrate surface exceeds 10,000 nozzles per square cm of substrate surface.

30. (Original) The system of claim 19 wherein each heater element has two opposite sides and is configured such that a said gas bubble formed by that heater element is formed at both of said sides of that heater element.

31. (Previously Presented) The system of claim 19 wherein the bubble which each heater element is configured to form is collapsible and has a point of collapse, and wherein each heater element is configured such that the point of collapse of a bubble formed thereby is spaced from that heater element.

32. (Original) The system of claim 19 comprising a structure that is formed by chemical vapor deposition (CVD), the nozzles being incorporated on the structure.

33. (Original) The system of claim 19 comprising a structure which is less than 10 microns thick, the nozzles being incorporated on the structure.

34. (Canceled)

35. (Original) The system of claim 19 wherein each heater element is formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

36. (Currently Amended) The system of claim 19 wherein each heater element includes solid material and is configured for a mass of less than 10 nanograms of the solid material of that heater element to be heated to a temperature above said boiling point thereby to heat ~~said part of~~ the bubble forming liquid to a temperature above said boiling point to cause the ejection of a said drop.

37. (Previously Presented) The system of claim 19 wherein each heater element is covered by a conformal protective coating, the coating of each heater element having been applied substantially to all sides of the heater element simultaneously such that the coating is seamless.

38. (Currently Amended) A method of ejecting drops of an ejectable liquid from a printhead, the printhead comprising:

a plurality of nozzles ~~in a plane of the printhead~~ ;

a plurality of bubble forming ~~chamber~~ chambers each corresponding to ~~each~~ a respective one of the nozzles ~~respectively~~;

~~at least one~~a heater element and a non-heater element disposed in each of the bubble forming chambers ~~respectively~~ to overlay one another with a space therebetween, the heater and non-heater elements being formed of the same heater material and each heater element being ~~configured for~~ connected to corresponding electrodes so as to be in thermal contact with a bubble forming liquid in the respective bubble forming chamber, wherein,

~~the~~ each heater element has ~~at least one~~ a bubble nucleation section, each bubble nucleation section having a smaller cross section than the remainder of the heater element; ~~and~~

~~a projecting nozzle rim formed about each of the nozzles respectively, each nozzle rim projecting in a direction perpendicular to the plane of the printhead so as to direct the drops ejected from the respective nozzle in said direction~~, the method comprising the steps of:

heating ~~the~~ each heater element with said corresponding electrodes to a temperature above the boiling point of the bubble forming liquid to form a gas bubble that causes the ejection of a drop of an ejectable liquid from the nozzle; and

supplying the nozzle with a replacement volume of the ejectable liquid equivalent to the ejected drop.

39. (Canceled)

40. (Currently Amended) The method of claim 38 wherein ~~the~~ each bubble forming chamber has a circular cross section and ~~the~~ each heater element has arcuate sections that are concentric with the circular cross section.

41. (Canceled)

42. (Original) The method of claim 38 wherein the bubble forming liquid and the ejectable liquid are of a common body of liquid.

43. (Original) The method of claim 38 wherein the printhead is configured to print on a page and to be a page-width printhead.

44. (Currently Amended) The method of claim 38 wherein said step of heating ~~the at least one~~each heater element is effected by applying an actuation energy of less than 500nJ to each such heater element.

45. (Canceled)

46. (Original) The method of claim 38 wherein the printhead includes a substrate on which said nozzles are disposed, the substrate having a substrate surface and the areal density of the nozzles relative to the substrate surface exceeding 10,000 nozzles per square cm of substrate surface.

47. (Currently Amended) The method of claim 38 wherein ~~the at least one~~each heater element has two opposing sides and the bubble is generated at both of said sides of each heated heater element

48. (Currently Amended) The method of claim 38 wherein the generated bubble is collapsible and has a point of collapse, and is generated such that the point of collapse is spaced from ~~the at least one~~ each heater element.

49. (Original) The method of claim 38 wherein the printhead has a structure that is less than 10 microns thick and which incorporates said nozzles thereon.

50. (Original) The method of claim 38 wherein the nozzles of the printhead are formed by chemical vapor deposition (CVD).

51. (Canceled)

52. (Original) The method of claim 38 wherein the heater elements are formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

53. (Currently Amended) The method of claim 38 wherein the heater elements include solid material and wherein the step of heating ~~at least one~~each heater element comprises

heating a mass of less than 10 nanograms of the solid material of each such heater element to a temperature above said boiling point.

54. (Previously Presented) The method of claim 38 wherein a conformal protective coating is applied to all sides of each of the heater elements simultaneously, such that the coating is seamless.